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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/759,260	01/19/2004	William C. Boyd	58372US004	6913	
32692 . 75	590 11/14/2005		EXAMINER		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			BRUENJES, CH	BRUENJES, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER	
•			1772		

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)		
	10/759,260	BOYD, WILLIAM C.		
Office Action Summary	Examiner	Art Unit		
	Christopher P. Bruenjes	1772		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION (6(a). In no event, however, may a reply be tim ill apply and will expire SIX (6) MONTHS from to cause the application to become ABANDONED.	l. ely filed the mailing date of this communication. D (35 U.S.C. § 133).		
Status				
Responsive to communication(s) filed on <u>31 Oc</u> This action is FINAL . 2b)⊠ This Since this application is in condition for allowant closed in accordance with the practice under <i>E</i>	action is non-final. ace except for formal matters, pro			
Disposition of Claims				
4) Claim(s) <u>1-36</u> is/are pending in the application. 4a) Of the above claim(s) <u>31-36</u> is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) <u>1-30</u> is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or				
Application Papers				
 9) The specification is objected to by the Examiner 10) The drawing(s) filed on 19 January 2004 is/are: Applicant may not request that any objection to the objected to by the Examiner 11) The oath or declaration is objected to by the Examiner 	a)⊠ accepted or b)□ objected drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 				
Attachment(s)	»П	VDT-0 440)		
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 	4)			

DETAILED ACTION

Election/Restrictions

- Applicant's election without traverse of Group I, claims 1 in the reply filed on October 31, 2005 is acknowledged.
- 2. Claims 31-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

 Election was made without traverse in the reply filed on October 31, 2005.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or

provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/350,431. Although the conflicting claims are not identical, they are not patentably distinct from each other because the structure claimed in the claims of '431 is the same as the structure claimed in claims 1-30. The difference in the claims is that the instant claims have a functional limitation that the sleeve is "provided on a traffic device wherein the device no longer meets a color standard or reflectivity standard". limitation must be considered as all limitations in the claims must be considered but it is a functional/intended use limitation and receives little patentable weight, since articles are defined by what the article is not what it does. case, the sleeve claimed in '431 has the same structure and has the ability to be provided on a traffic device, especially in light of the specification in which the claims are read. Also, in light of the other independent claims 27 and 29, the instant

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claims claim an article comprising a support in combination with the claimed sleeve, and the claims of '431 deal only with the sleeve. However, when the claims of '431 are read in light of the specification it is obvious that the sleeve of claims '431 are applied to a support and therefore produce an article as claimed in claims 27 and 29 of the instant application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4-6, the limitation "according to ASTM D 882" renders the claims vague and indefinite because it is not understood if the method of performing that test is being claimed or if the limitation is merely providing explanation the

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method used to arrive at the claimed elongation at break value. Also, "ASTM D 882" is a standard that is subject to change and therefore could subject the scope of the claim to change over time, which would cause the claim to be indefinite.

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Regarding claim 7, the limitation that the reflective band is substantially free of backing renders the claim vague and indefinite because it is not understood how the band can be free of backing and yet be bonded to a substrate, which forms a backing to the band.

Regarding claim 9, the limitation that the reflective band further comprises a fabric banking renders the claim vague and indefinite because claim 9 is dependent on claim 7, which claims that the reflective band is substantially free of backing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

⁽b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-3, 7, 18-19, 21-23, and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Murthwaite et al (GB 2,302,609).

Regarding claim 1, Murthwaite et al anticipate a reflective sleeve for application to a support comprising a flexible substrate (reference number 1, Figure 1) having a viewing surface and a non-viewing surface and at least one reflective band (reference number 5, Figure 1) bonded to the flexible substrate wherein a portion of the flexible substrate is exposed on the viewing surface (Figure 1). Note the limitation "provided on a traffic device wherein the device no longer meets a color standard or a reflectivity standard" is a functional/intended use limitation in an article, which receives little patentable weight. Although all limitations within the claims are given consideration, an article is defined by what the structure of the article and not merely the intended use of that article. In this case, Murthwaite et al anticipate the structure of the article claimed and has the ability to preform the intended use. Regarding claim 2, the flexible substrate is non-retroreflective (p.2, 1.5-6). Regarding claim 3, the reflective band is at least as flexible as the flexible substrate, because the sleeve is formed as one unit before it is flexibly stretched and applied over a support via reference

number 3 in Figure 1. Regarding claim 7, the reflective band is applied directly to the substrate and therefore is substantially free of backing. Regarding claims 18-19, the substrate is rectangular having two pairs of parallel edges wherein upon joining one pair of edges a cylindrical shape is formed (figure 1). Regarding claim 21, the support comprises tubes or posts, such as scaffolding tube (see abstract). Regarding claims 22-23, the sleeve covers substantially the entire viewing surface of the support (Figure 1). Regarding claims 25-26, the flexible substrate is a conspicuous fluorescent color, such as yellow (p.2, 1.1-16). Regarding claims 27-28, the article comprises a support such as a scaffolding tube, which inherently has a substantially continuous viewing surface, and a non-reflective conspicuously colored sleeve substantially covering the viewing surface of the support that comprises a retroreflective band (p.2, 1.1-16).

6. Claims 1-3, 7-8, 12, 14-16, 21-23, 25, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman (GB 2,245,742).

Regarding claim 1, Freeman anticipates a reflective sleeve for application to a support (see abstract). The sleeve comprises a flexible substrate (reference number 1, Figure 1)

having a viewing surface and a non-viewing surface and at least one reflective band (reference numbers 2-4 combined, Figure 1) bonded to a flexible substrate wherein a portion of the flexible substrate is exposed on the viewing surface such as the middle stripe on Figure 2. Regarding claim 2, the flexible substrate is non-retroreflective, because the substrate is a plastics material and the retroreflective material is coated on portions of the substrate. Regarding claim 3, the reflective band is at least as flexible as the flexible substrate, because the sleeve is formed as a planar object and then wrapped around a cone. Regarding claim 7, the reflective band is applied directly to the substrate and therefore is substantially free of backing. Regarding claim 8, the reflective band consists essentially of microspheres at least partially embedded in a binder or ink layer and specular or diffuse reflecting material (p.3, 1.6-9). Regarding claim 12, the substrate comprises a base arcuate edge and a top arcuate edge parallel to the base arcuate edge and a pair of side edges (Fig. 2). Regarding claims 14-16, the sleeve upon joining the side edges forms a conical shape having a single opening or a pair of openings, because the sleeve is used a sleeve on a road cone (p.1, 1.8-10). Regarding claim 21, the support is a traffic cone (p.1, 1.8-9). Regarding claims 22-23, the sleeve covers substantially the entire viewing surface of

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the support (Figure 2). Regarding claim 25, the flexible substrate is a conspicuous color (p.4, 1.10-15). Regarding claims 27-28, the article comprises a support such as a scaffolding tube, which inherently has a substantially continuous viewing surface, and a non-reflective conspicuously colored sleeve substantially covering the viewing surface of the support that comprises a retroreflective band (see abstract). Regarding claim 29, the article comprises a support and a non-reflective sleeve having a viewing surface comprising at least one of indicia, symbols, graphics, and combinations thereof (see abstract). Regarding claim 30, the substrate and reflective band is also used as a roll-up or flexible sign (p.1, 1.6-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere* Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Nakayama et al (USPN 6,517,923).

Freeman teaches all that is claimed in claim 1 as shown above, but fails to explicitly teach the elongation at break of the reflective band or bands. However, Freeman teaches that the reflective sheet including the reflective band portions which are coatings on the substrate are flexible in nature in order to use as a sleeve on road cones. Nakayama et al teach that reflective sheets used as reflective bands applied to substrates such as a wall inside a tunnel, a guardrail, or a sign, to enhance visibility of the object during the night (col.1, 1.5-15) is formed with an elongation at break of between 5 and 300% (col.7, 1.51-61), in order to have the flexibility need to apply to substrates without breaking. One of ordinary skill in the art would have recognized that the elongation at break of a reflective sheet used to apply to substrates for enhancing

visibility of an object during the night, would be up to at least 300%, in order to provide the necessary flexibility to the reflective sheet to allow the sheet to be applied to flexible and curved substrates without breaking, as taught by Nakayama et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the reflective sheet of Freeman with an elongation at break of at least 300% in order to provide the necessary flexibility required by Freeman for applying the sheet or band to flexible and curved substrates without breaking, as taught by Nakayama et al.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murthwaite et al in view of Nakayama et al (USPN 6,517,923).

Murthwaite et al teach all that is claimed in claim 1 as shown above, but fail to explicitly teach the elongation at break of the reflective band or bands. However, Murthwaite teach that the reflective sheet including the reflective band portions, which are coatings on the substrate are flexible in nature in order to stretch the reflective sheet around an object that the sleeve or sheet ultimately wraps around. Nakayama et

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al teach that reflective sheets used as reflective bands applied to substrates such as a wall inside a tunnel, a guardrail, or a sign, to enhance visibility of the object during the night (col.1, 1.5-15) is formed with an elongation at break of between 5 and 300% (col.7, 1.51-61), in order to have the flexibility needed to apply to substrates without breaking. One of ordinary skill in the art would have recognized that the elongation at break of a reflective sheet used to apply to substrates for enhancing visibility of an object during the night, would be up to at least 300%, in order to provide the necessary flexibility to the reflective sheet to allow the sheet to be applied to flexible and curved substrates without breaking, as taught by Nakayama et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the reflective sheet of Murthwaite et al with an elongation at break of at least 300% in order to provide the necessary flexibility required by Murthwaite et al for stretching the sheet or band around flexible and curved substrates without breaking, as taught by Nakayama et al.

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9. Claims 8-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murthwaite et al in view of Martin et al (USPN 5,236,751).

Murthwaite et al teach all that is claimed in claims 1 and 7 as shown above, but fail to explicitly teach the make up of the reflective band, substrate, or using the sleeve on other supports besides tubes or posts.

Regarding claim 8, Martin et al teach reflective bands applied as safety markers to supports are formed from glass bead retroreflective sheeting sold under the trademark SCOTCHLITE by 3M (col.3, 1.43-46), which is a reflective band consisting essentially of microspheres at least partially embedded in a binder layer and specular or diffuse reflecting material. One of ordinary skill in the art would have recognized that SCOTCHLITE is a well known retroreflective sheeting used in the art of safety markers to form reflective bands and is substituted for other reflective bands depending on the intended end result of the safety marker, as taught by Martin et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to select SCOTCHLITE retroreflective sheeting as the reflective material of Murthwaite et al, because SCOTHLITE is well known as

a substitute for other reflective materials depending on the intended end result of the material, as taught by Martin et al.

Regarding claims 9-11, Martin et al further teaches that it is customary to provide a flexible backing sheet behind the reflective sheeting so as to strengthen and protect it and to provide a smooth surface for application to other surfaces (col.4, 1.39-42). The backing is typically a woven or laid fabric (col.4, 1.50-51). The reflective band comprises a heat activated adhesive to bond the band to a backing (col.5, 1.12-20). Because claim 9 is dependent on claim 7 and seem to be conflicting each other, claim 7 has been interpreted to mean that the reflective sheeting itself does not have a backing, but the sheeting can be applied to a separate backing. One of ordinary skill in the art would have recognized that a backing sheet is applied to a reflective band in order to strengthen and protect it and to provide a smooth surface for bonding to other surfaces, as taught by Martin et al. Therefore, it would have been obvious to one having ordinary skill in the art to add a backing sheet to the reflective band of Murthwaite et al in order to strengthen and protect it and to provide the band with a smooth surface for bonding, as taught by Martin et al.

Regarding claims 12-17, Martin et al teach that reflective sleeves having substantially the same structure with slight

modifications are used as safety markers on not only posts and tubes such as Murthwaite et al teach, but also traffic cones (col.6, 1.36-39). In order to use a safety marker to cover a traffic cone Martin et al teaches that the reflective sleeve comprises a base arcuate edge and a top arcuate edge parallel to the base arcuate edge and a pair of side edges (Figure 2 and 3) and teaches that the bands are made parallel with the base and top arcuate edges (Figure 1). Murthwaite et al teach that more than one band are formed with space between them, in order to provide discontinuous alternating bands of color (p.2, 1.1-7). Martin et al further teaches that the when the side edges of the sleeve are joined a conical shape is formed having comprising an opening about the base arcuate edge and an opening about the top arcuate edge (Figure 2). One of ordinary skill in the art would have recognized that the location of the reflective bands would be determined depending on the intended end result of the sleeve and regulations regarding spacing of alternating color for safety markers. One of ordinary skill in the art would have also recognized that safety markers are used for posts as well as traffic cones, and when the sleeve is used for a traffic cone the sleeve is shaped to form a conical shape in order to fit around a traffic cone, as taught by Martin et al. Therefore, it would have been obvious to one having ordinary skill in the art

at the time the applicant's invention was made to change the shape of the reflective sleeve of Murthwaite et al, in order to enable the sleeve to be used as a sleeve on a traffic cone, since it is well known in the art that the same basic structure of safety sleeves can be used for traffic cones or posts, as taught by Martin et al.

Regarding claim 20, Murthwaite et al teach that the substrate is a flexible material, but fails to teach what the material is. Martin et al teaches that a sheet used as an intermediate layer between a reflective sheeting or band and the support is typically a woven or non-woven fabric or a vinyl film (col.4, 1.50-56), in order to provide the sheeting or band with sufficient strength, protection and flexibility for applying to a support. One of ordinary skill in the art would have recognized that a substrate used as an intermediate layer between reflective sheeting or band and a support would be a woven or non-woven fabric or a vinyl film, in order to provide the band with sufficient strength, protection, and a smooth surface for bonding, as taught by Martin et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to select a woven or non-woven fabric, or a vinyl film as the substrate of Murthwaite et al, because those particular materials provide

sufficient strength, protection, and smoothness for bonding, to a reflective band prior to bonding to a support, as taught by Martin et al.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murthwaite et al in view of Boyd (WO 99/24671).

Murthwaite et al teach all that is claimed in claim 1 as shown above and teach that the color of the flexible substrate is changed depending on the intended color pattern desired for a certain indication (p.2, 1.1-16). The purpose of the Murthwaite et al sleeve is to provide a single sleeve that has the same appearance as a tape wrapped around a pole (p.1, 1.5-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select the color of the flexible substrate to be the same as the support in order to maximize the appearance of the sleeve representing a tape wrapped around the support. Furthermore, Body teaches that the area of the flexible substrate between retroreflective bands should be colored the same color as the underlying support, so that the color of the underlying support is projected at night as well as the day so that the article presents the same color day or night (p.2, 1.21-26), and so that

the sleeve has the appearance of separate bands being attached to the support. One of ordinary skill in the art would have recognized that the flexible substrate of a sleeve for marking articles is colored the same color as the substrate so that the sleeve will have the appearance of the support wrapped with

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bands of reflective material during the day and night, while having the convenience of a one-piece installation, as taught by Boyd.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select the color of the flexible substrate as the same color as the support the sleeve will be attached to, in order to provide the finished article with the appearance of a support wrapped with bands of reflective material, which is the desire of Murthwaite, while having the convenience of a one-step installation, as taught by Boyd.

11. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murthwaite et al in view of Freeman.

Murthwaite et al teach an article comprising a support and a non-retroreflective sleeve having a view surface (see abstract). Murthwaite et al fail to teach that the viewing surface comprises at least one of indicia, symbols, graphics,

and combinations thereof. However, Freeman teaches that an array of symbols or indicia are added to retroreflective containing safety sleeves in order to provide a decorative or informative appearance providing evenly distributed instructions or information (p.3, 1.21-25). One of ordinary skill in the art would have recognized that symbols and indicia are added to retroreflective containing sleeves used in the art to provide visual information during the day and night, in order to provide a decorative or informative appearance that presents instruction or other information, as taught by Freeman.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to add indicia and/or symbols to the viewing surface of the sleeve of Murthwaite et al, in order to provide decoration and/or information such as instructions, as taught by Freeman.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes

Examiner

Art Unit 1772

CRT

CPB

November 8, 2005

HAROLD PYON
SUPERVISORY PATENT EXAMINER